



Disinfection is key

Fighting COVID-19 with ClO₂

Protect yourself and others with Chlorine Dioxide

Disinfection is key in the global fight against COVID-19. Chlorine Dioxide (ClO₂) is one of the most effective disinfectants, capable of eliminating bacteria, viruses, molds, biofilms and even spores. Its function as biocide, algacide, fungicide, makes it a very powerful general disinfectant while at the same time being very gentle with the items to be disinfected.

ClO₂ is used in various applications, such as disinfection of drinking water, cleaning of medical instruments and personal protection equipment.

ClO₂ measurement ranges are e.g., in mg/L or % for solutions or mg/m³ for workplace air concentrations.

In all cases the ClO₂ content must be controlled and accurately monitored. This is where optek's sensors and converters come into play, which have been used in industrial applications for over 30 years.

ClO₂ disinfection can be used e.g., for

- Masks
- Gowns
- Headgears
- Clothes
- Instruments
- Containers
- Wheelchairs
- Complex components
- Surfaces
- and much more...



Inline chlorine dioxide measurements

optek's chlorine dioxide (ClO₂) analyzers measure real time ClO₂ solution strength and/or ClO₂ gas concentration. Operationally, the analyzer passes a light beam through the ClO₂ stream to be monitored, where light absorbance is measured at two distinct wavelengths. The measuring wavelength is set to focus on the ClO₂ absorbance curve, while the secondary wavelength compensates for any influence such as:

- window fouling
- particulate / suspended solids
- immiscible fluids
- gas bubbles



AF26 sensor



C4000 converter

What makes optek's chlorine dioxide analyzer systems the best choice for ClO₂ monitoring?

A complete optek ClO₂ analyzer is comprised of a C4422 converter, an AF26-VB sensor and a titanium or TFMC (Teflon) process connection. Together, this package offers the following advantages:

- Chlorine dioxide measurements without use of consumable reagents
- ClO₂ measurements independent of flow rate or flow velocity
- Can accommodate two independent measurement points on one C4422 transmitter
- According to ATEX: Can be installed in Zone 1 (EPL, „Gb“) or in Zone 2 (EPL, „Gc“). Conform to IECEx.
- According to FM: Can be installed in Class 1, Division 1 or Class 1, Division 2 areas
- In the case of ClO₂ gas measurements, can compensate for temperature and pressure swings
- Independent monitoring of the reference wavelength, giving a real-time indication of window fouling
- System comes with a NIST traceable validation adapter allowing for an online check of sensor performance
- Utilizes a tungsten filament lamp ensuring long lamp life and consistent emissivity

Control C4000 Features

4 channel photometric measurement converter

Menu based software in several languages including linearization curve options
EX proof (ATEX, FM) housing and channels

Graphics display for up to 4 real time measurements

Optional Profibus® PA and FOUNDATION™ Fieldbus connectivity

AF26 Sensor Features

Configurable dual channel color sensor with 2 wavelengths for turbidity compensated color measurement

High performance sensor for broad range of applications

Available for installations in hazardous areas
NIST-traceable validation accessories
Different wavelength modules available

Benefits

Connect up to 4 photometric sensors and 2 analogue and 2 signal inputs devices

Easy configuration of the converter for individual applications

Can be installed in hazardous areas saving additional installation costs

Free editable measurement formats and multiple data display and output capabilities

Easy implementation of data communication into Bus-Environment

Benefits

Flexibility to measure a broad range of products

Measurement can be expressed in any color scale, e.g., APHA, Saybolt, ASTM, ICUMSA, EBC, Gardner etc.

Complies with IECEx, ATEX, FM

Easy on-site / on-demand verification

Application optimized configuration

For more information, technical details or a quote please contact your local optek subsidiary or dealer. Visit our website for direct access to technical information: www.optek.com



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